

## **CLAIMS**

I claim:

1. An apparatus for detecting generated sparks, where an electrical power means supplies power to a spark generating means and where the electrical power  
5 supplied by the electrical power means to the spark generating means is detected by a sensor means so as to produce an output that is related to the occurrence of generated sparks.
2. The apparatus of Claim 1 wherein the generated sparks are used to ignite fuel inside a spark-ignited internal combustion engine.
- 10 3. The apparatus of Claim 1 wherein the output of the sensor means is transmitted to a computing means so as to provide diagnostic information.
4. The apparatus of Claim 1 wherein the sensor means includes the electronic circuitry shown in the box labeled "SENSOR MEANS" in Figure 1.
5. A method for detecting generated sparks, where an electrical power means  
15 supplies power to a spark generating means and where the electrical power supplied by the electrical power means to the spark generating means is detected by a sensor means so as to produce an output that is related to the occurrence of generated sparks.
6. The method of Claim 1 wherein the generated sparks are used to ignite fuel  
20 inside a spark-ignited internal combustion engine.
7. The method of Claim 1 wherein the output of the sensor means is transmitted to a computing means so as to provide diagnostic information.